IN THE CLAIMS

Please amend the claims as follows:

1. (Twice Amended) An apparatus comprising:

a first reaction chamber;

a gas source coupled to the first reaction chamber to supply a nitrogen gas to the first reaction chamber;

an excitation energy source coupled to the first reaction chamber to generate a nitrogen plasma comprising ions and radicals from the nitrogen gas; and

a second reaction chamber adapted to house a substrate for film formation at a site in the second reaction chamber,

wherein the first reaction chamber is coupled to the second reaction chamber and separated from the substrate site by a distance equivalent to the lifetime of the ions at a plasma generation rate such that the radicals react with the substrate in a film conversion step.

6. (Twice Amended) An apparatus for exposing a substrate to plasma, comprising:

a first reaction chamber;

means for supplying a nitrogen gas to the first reaction chamber;

means for generating a plasma from the nitrogen gas, the plasma comprising ions and radicals;

a second reaction chamber having means for housing a substrate for film formation processing; and

means for providing the plasma to the second reaction chamber substantially free of ions such that the radicals react with a substrate in a process conversion step.

17. (Twice Amended) A system for reacting a plasma with a substrate, comprising:

a first chamber;

a gas source coupled to the first chamber comprising constituents adapted to react with a substrate;

an energy source coupled to the first chamber;

a second chamber configured to house a substrate for film formation processing;

a system controller configured to control the introduction of a gas from the gas source into the first chamber and to control the introduction of an energy from the energy source; and

a memory coupled to the controller comprising a computer-readable medium having a computer-readable program embodied therein for directing operation of the system, the computer-readable program comprising:

instructions for controlling the gas source and the energy source to convert a portion of a gas supplied by the gas source into a plasma comprising plasma ions and radicals and to deliver the plasma to the second chamber substantially free of ions to react with a substrate in the second chamber in a film conversion step.